



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,884	04/28/2006	David L. Johnson	HAM 830020/USw	2238

62067 7590 06/09/2009
HUNTSMAN ADVANCED MATERIALS AMERICAS INC.
LEGAL DEPARTMENT
10003 WOODLOCH FOREST DRIVE
THE WOODLANDS, TX 77380

EXAMINER

HARRISON, NICOLE K

ART UNIT	PAPER NUMBER
----------	--------------

1794

MAIL DATE	DELIVERY MODE
-----------	---------------

06/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,884	Applicant(s) JOHNSON ET AL.	
	Examiner NICOLE HARRISON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-33 is/are pending in the application.
- 4a) Of the above claim(s) 15-18, 26 and 30-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 19-25 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/28/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 14-29 and further election of claims 14, 19-25, and 27-29 in the reply filed on 3/16/09 is acknowledged. The traversal is on the ground(s) that the inventions do not impose an undue burden of examination on the Examiner. This is not found persuasive because Groups I and II are separate inventions that have acquired a separate status in the art in view of their different classification. Additionally, the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries).

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 15-18 and 26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/16/09.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 14, 19, 23-25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamura et al. (U.S. Patent No. 6,287,745).

Regarding claims 14, 19, 25, and 27, Yamamura et al. discloses a photocurable composition comprising a cationically polymerizable epoxy compound (col.4, lines 58-60), a methacrylate component (Table 3, line 10), a polyether polyol containing two or more hydroxyl groups (col.11, lines 8-10, 25), a cationic photoinitiator (col.6, lines 35-36), and a free radical photoinitiator (col.10, lines 24-25).

Regarding claims 23 and 24, Yamamura et al. discloses the same components and overlapping component percentages as the instant application and therefore, would be expected to have a similar yellow index/inch value of less than 90 or 80.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 14, 19-21, 23-25, and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al. (U.S. Patent No. 7,232,850).

The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the

reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 14, Johnson et al. discloses a photocurable composition comprising a difunctional non-glycidyl epoxy, a difunctional (meth)acrylate, difunctional hydroxyl-containing compound, a cationic photoinitiator; and (e) a free radical photoinitiator (col.2, lines 7-13).

Regarding claims 19 and 20, Johnson et al. discloses that at least one multifunctional (meth)acrylate can comprise ethoxylated trimethylolpropane triacrylate (col.7, lines 16 or 33).

Regarding claim 21, Johnson et al. discloses that component (c) can be Polymeg® 1000, which has a molecular weight of 1000 (col.8, lines 4-9).

Regarding claims 23 and 24, Yamamura et al. discloses the same components and overlapping component percentages as the instant application and therefore, would be expected to have a similar yellow index/inch value of less than 90 or 80.

Regarding claims 25, 27, and 28, Johnson et al. discloses a photocurable composition comprising a cationically polymerizable epoxy compound (col.1, line 66; col.2, lines 8-9), a methacrylate component (col.2, lines 10-11) containing ethoxylated trimethylolpropane triacrylate (col.7, lines 16 or 33), a polyether polyol containing two or more hydroxyl groups (col.7, line 67), a cationic photoinitiator (col.2, lines 12-13), and a free radical photoinitiator (col.2, line 13).

Regarding claim 29, Johnson et al. discloses component (b) having between 15-35wt % of the composition (col.2, line 10). Johnson et al. does not teach the exact same

Art Unit: 1794

proportions as recited in the instant claims. However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Johnson et al. overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 1794

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 21, 22, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamura et al. (U.S. Patent No. 6,287,745) as applied to claim 14 above.

Regarding claim 21, Yamamura et al. discloses that the component containing two or more hydroxyl groups, polyether polyol, has a molecular weight of between 100-2,000 (col.11, lines 53-54). Yamamura et al. does not teach the exact same proportions as recited in the instant claims for the molecular weight of component (b). However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Yamamura et al. overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Regarding claims 22 and 29, Yamamura et al. discloses a methacrylate component (Table 3, line 10) in the amount of 5-45 wt % relative to the total composition (col.10, lines 10-12). Yamamura et al. does not teach the exact same proportions as recited in the instant claims for the amount of methacrylate component in the total composition. However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Yamamura et al. overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. In re Peterson 65 USPQ2d 1379 (CAFC 2003).

11. Claims 20 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamura et al. (U.S. Patent No. 6,287,745) as applied to claims 14 and 27 above, and further in view of Lapin et al. (U.S. Patent No. 6,251,557).

Yamamura et al. discloses the methacrylate component being trimethylolpropane triacrylate (Table 3, line 9), but not trimethylolpropane ethoxylated triacrylate. However, Lapin et al. discloses using ethoxylated trimethylolpropane triacrylate as the multi-functional acrylate (col.5, line 23). At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yamamura et al. and Lapin et al. before him or her, to modify the photocurable composition of Yamamura et al. to include the multifunctional acrylate of Lapin et al. because the acrylate helps to improve cure speed (col.4, lines 51-52).

12. Claim 22 is rejected under 35 U.S.C. 103(a) as being obvious over Johnson et al. (US Patent No. 7,232,850) in further view of Yamamura et al. (U.S. Patent No. 6,287,745).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 22, Johnson et al. fails to teach the composition comprising about 3-10 wt % of component (b). However, Yamamura et al. teaches that component (b) can comprise 5-45wt % of the composition (col.10, line 12). Yamamura et al. does not teach the exact same proportions as recited in the instant claims. However, one of ordinary skill in the art at the time the invention was made would have considered the

Art Unit: 1794

invention to have been obvious because the compositional proportions taught by Yamamura et al. overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. *In re Peterson* 65 USPQ2d 1379 (CAFC 2003).

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. **Claims 25, 27, and 29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 6, and 10 of U.S. Patent No. 7,232,850 in view of Yamamura et al (U.S. Patent No. 6,287,745).**

Both claim a cationically curable component containing epoxy, an acrylate component comprising methacrylate, a hydroxyl-containing compound comprising polyether polyol, a cationic photoinitiator, and free radical photoinitiator. The instant application fails to claim the percentages given in the related patent. However, Yamamura et al. (col.6, line 24; col.10, line 12; col.12, line 14) teaches overlapping component percentages given in Patent No. 7,232,850. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Johnson et al. and Yamamura et al. before him or her, to modify the photocurable composition of Johnson et al. to include the component percentages of Yamamura et al. because the composition of Yamamura et al. exhibits superior photocurability and high mechanical strength (col.1, lines 7-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE HARRISON whose telephone number is (571) 270-3741. The examiner can normally be reached on Monday through Thursday, 8 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

NH